

ABSTRACT

According to one aspect of the invention, a method and apparatus for a server node is disclosed. This server node consists of one or more processors. The processors are configured to perform server functions as well as switch and router functions including

5 load balancing and fail-over. The server nodes also have a plurality of ports. These ports allow the server nodes to be connected combined to form blocks and networks as well as to provide connection to external networks. When a server node receives a request, it determines whether it can handle the request. If possible, the server node handles the

10 request. If the server node cannot handle the request, it routes the request to a second, neighboring server node.

According to another aspect of the invention, a method and apparatus for a server block is disclosed. This server block consists of a plurality of server nodes and a plurality of signal paths connected with the ports of each server node. At least one path connected with each node provides an external connection to the server block and at least two paths connected with each node are connected with other server nodes in the block.

According to another aspect of the invention, a method and apparatus for a computer network is disclosed. This computer network consists of a plurality of server blocks and a plurality of signal paths connected with the server blocks. At least one signal path connected with each server block provides an external connection to the network and

15 at least two signal paths connected with each server block are connected with other server blocks in the network.